LCA

Communication to the agents
Hospitality cardholder

Contents

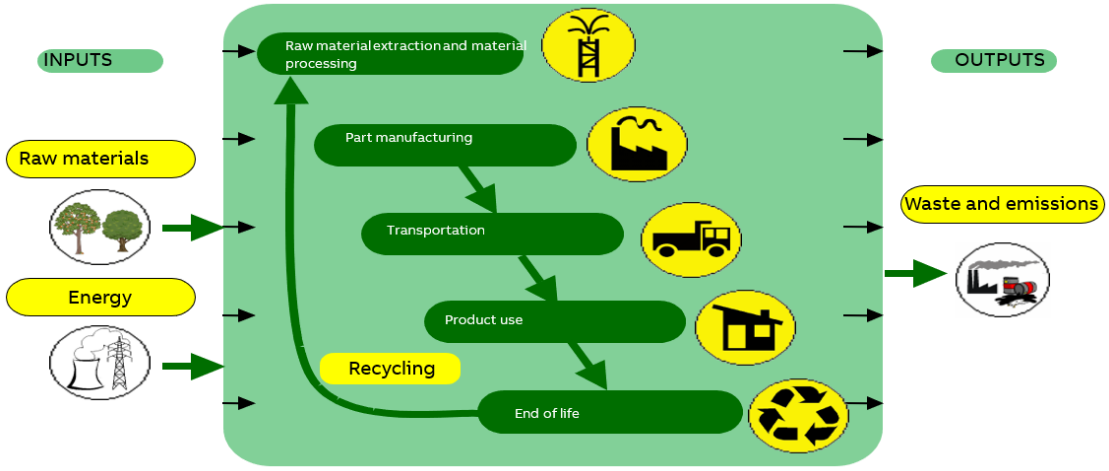
1. Introduction

1.1. Quality and environmental management

Our policy of continuous improvement also requires a demanding and responsible work, which has led to the implementation of the UNE-EN-ISO 14006: Environmental management systems Guidelines for incorporating ecodesign in our Quality Management System and Environment.

Eco-design is understood as a process integrated within the design and development that aims to reduce environmental impacts and continually to improve the environmental performance of the products, throughout their life cycle from raw material extraction to end of life.

In order to be of benefit to our organization and to ensure that we achieve our environmental objectives, we carry out eco-design as an integral part of the business operations of our organization.



So in 2007 Asea Brown Boveri, S.A. NIESSEN factory, certify the Environmental Management Design and Development process according to UNE 150301. To subsequently adapt the system to the international standard UNE EN ISO 14006.

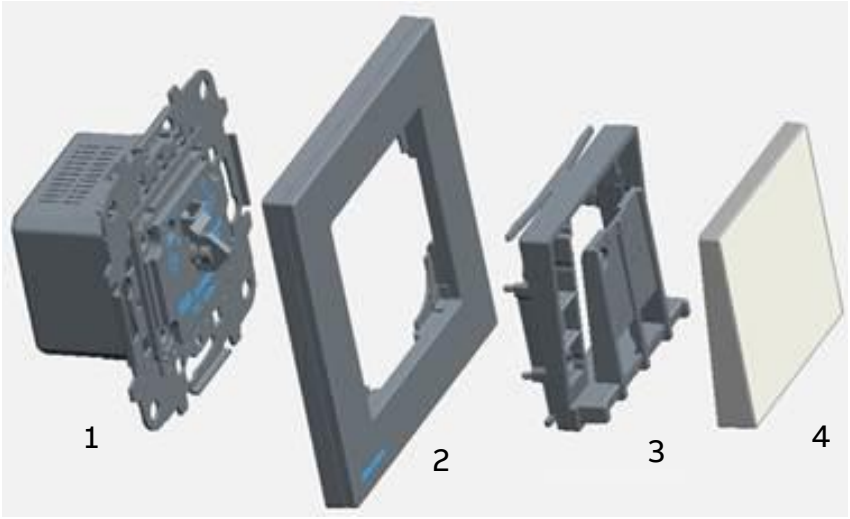
AENOR
Ecodiseño
UNE-EN ISO 14006

ED-0008/2007

1.2. Purpose of the study

In this study the Hospitality range cardholder has been environmentally analyzed to seek for an improvement, and it has been compared with the ZENIT cardholder to check the reduction in its environmental impact.

1.3. Eco-designed product



Part	Name	Material
1	Mechanism	PC
2	Frame	PC
3	Lightguide	PC
4	Cover	PC

1.4. Raw materials used

The different parts of the product are manufactured with PC, a tough thermoplastic mainly used in electronic applications, as it works as a good electrical insulator with heat-resistant and flame-retardant properties.

2. Considerations of the eco designed products

2.1. Usage considerations

- Make strong electrical connections; this will prevent heat loss in connections, and unnecessary energy consumption.

2.2. Recyclability considerations

-The cardboard packaging is recycled
-The plastics are recyclable, and they include a marking inside (indicating the material they are made of) so they can be disassembled.

2.3. Environmental improvements

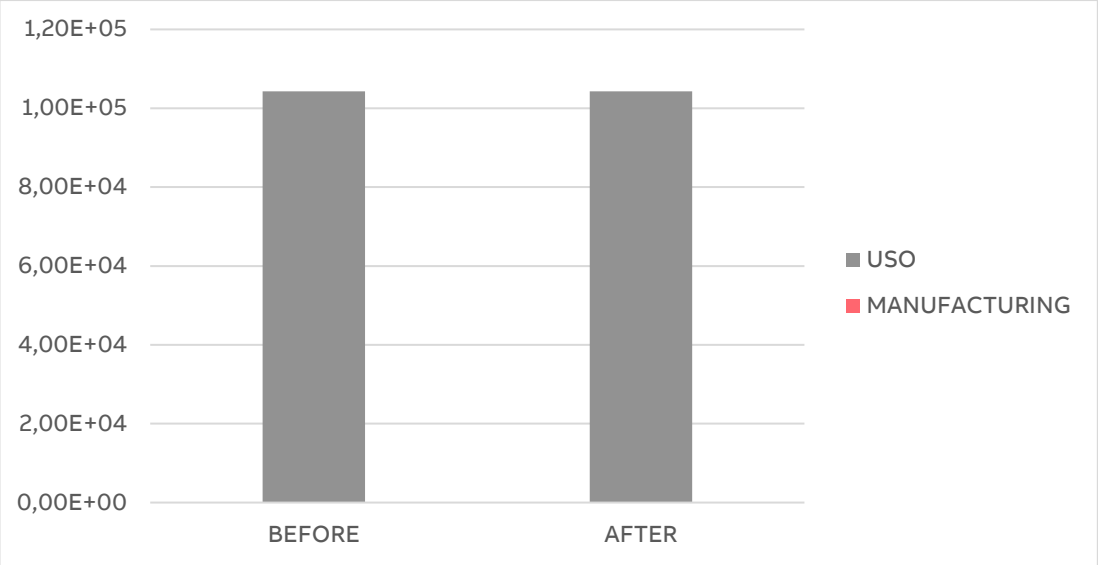
-Elimination of use of halogenated flame retardants, by using halogen-free materials.
-Minimum cardboard for recyclable packaging
-Minimum number of components, thereby savings in energy and raw materials in manufacturing processes.
-Use of water-based paints, avoiding the use of solvents harmful to the environment.
-The change of components in the electronic circuit achieves a reduction in energy consumption of 3% in the use stage.
-The change of components in the electronic circuit achieves a reduction in energy consumption of 100% in the standby stage.
-The elimination of polyamide in the manufacturing, and the reduction of polycarbonate.
-The reduction on the impact on a 65,61%

3. Impacts

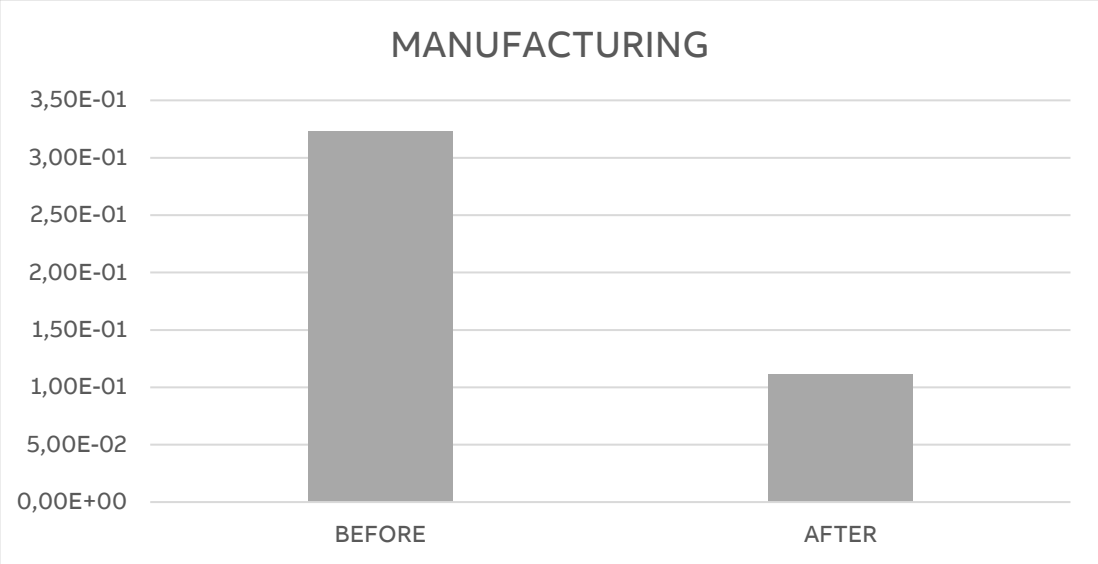
3.1. Methodology and data

For this analysis the software Simapro 9.1.0 has been used, with the database Ecoinvent 3.
The calculations have been made with the methodologies IPCC GWP 100a and CML-IA baseline.
The lifecycle stages considered have been: raw materials and use.
The data has been obtained from SAP.

3.2. Comparative

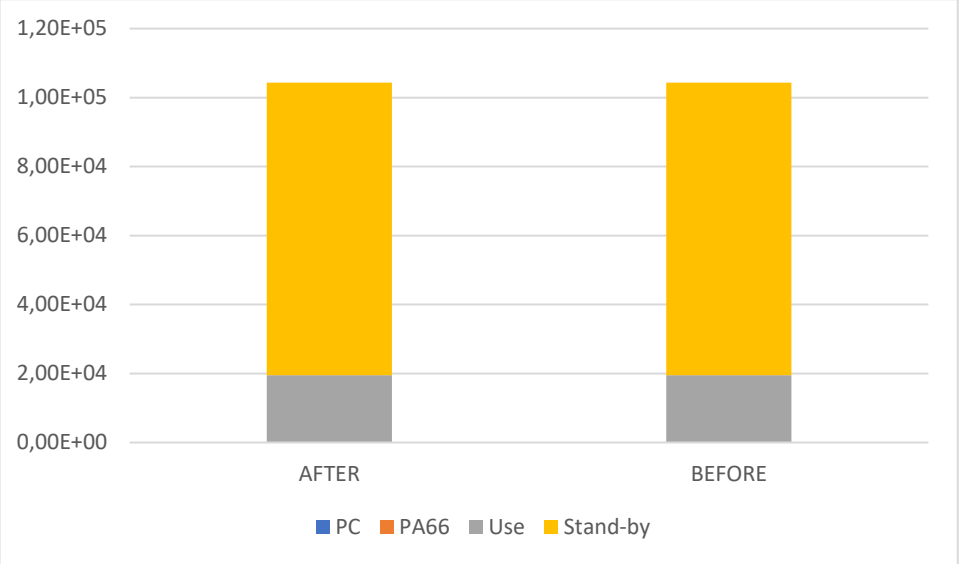


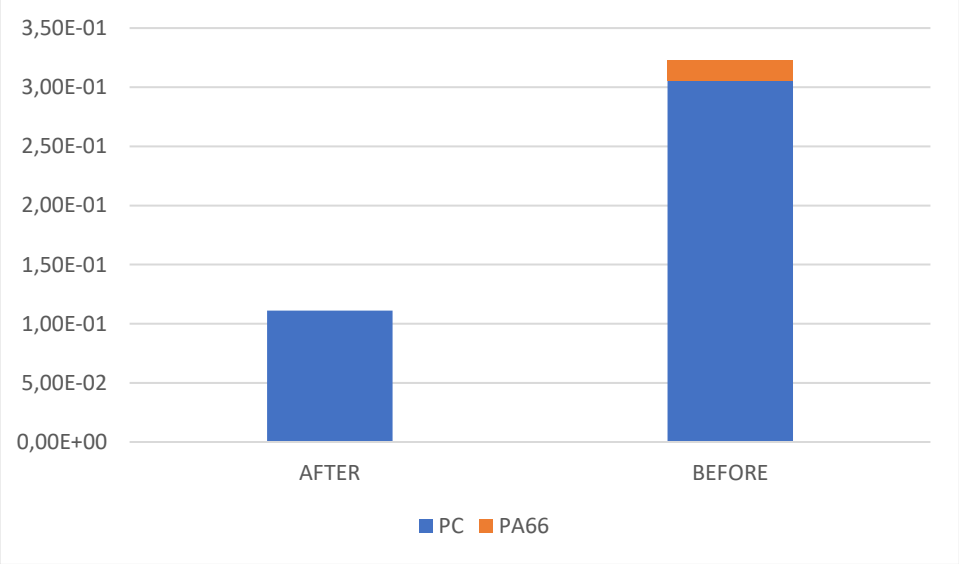
The graphic shows that the use stage in both cases has the same impact, as the electrical consumption is the same in both, the ZENIT and the HOSPITALITY cardholder. Moreover, the impact of the use stage is the biggest by far, so in order to see the real decrease on the impact of the Hospitality cardholder, the manufacturing stage graph must be analyzed.



In this graph is much better appreciated the improvement of Hospitality comparing it with ZENIT, as apart from removing the polyamide, there has been a reduction in material.

4. Conclusions





The first graph includes the use stage, which has the biggest percentage of the impact of the whole lifecycle, so the reduction on the impact is better appreciated in the graph were only the manufacturing stage.

Note: The presentation of these texts wrath according to the medium used (web, catalogs, instructions) so it does not always have this format.

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12/01/2021